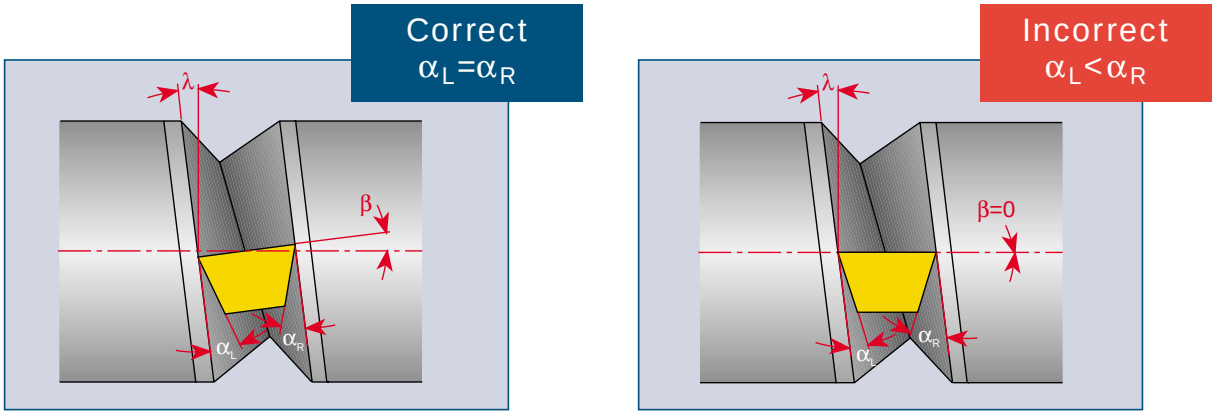
Flank Clearance and Effective Inclination Angle

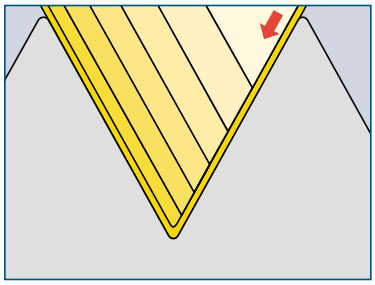
Inclination angle β of the cutting edges correspond to a specific thread helix angle λ and insures equal clearance angle on both sides of insert.



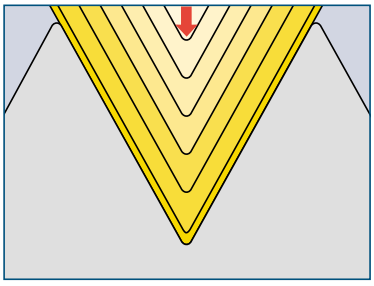
α - Flank clearance angle
λ - Helix angle
β - Effective inclination angle is achieved by selecting the suitable anvil

Infeed Methods for Threading Operations

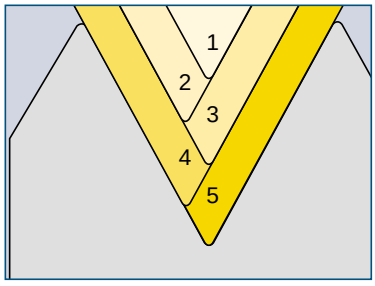
Flank Infeed



Radial Infeed

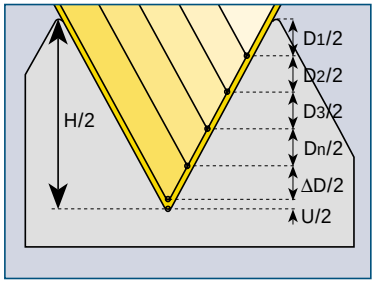


Alternating Flanks infeed



Flank Equal

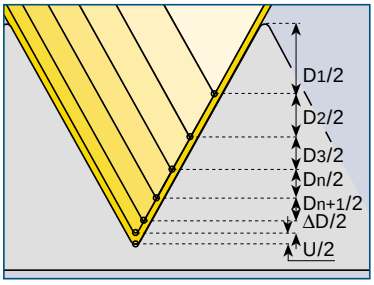
Equal depth of cut for each pass



$$\frac{D_1}{2} = \frac{D_2}{2} = \frac{D_3}{2} = \frac{Dn}{2}$$

Flank Diminishing

Diminished depth of cut for each pass



$$\frac{D_1}{2} > \frac{D_2}{2} > \frac{D_3}{2} > \frac{Dn}{2} > \frac{Dn_{+1}}{2}$$

H - Depth of thread profile (on ø)
D - Depth of pass (on ø)
U - Depth of finishing pass (on ø)